

Development Services Department  
Building Safety Division

## **INSTRUCTION FOR PREPARATION OF SPECIAL INSPECTION CERTIFICATE, BUILDING CODE DIRECTIVE #19**

Special Inspection Certificates shall be completed as instructed below and submitted with *original signatures* to the Development Services Department/Building Safety Division. Paperwork must be completed in ink, preferably blue.

### **A. PROJECT IDENTIFICATION**

1. Legibly print the project name and address, date completed and tracking number where specified. (*tracking # example: DS010000*)

### **B. NOTIFICATION OF SPECIAL INSPECTION BY OWNER**

1. Legibly print the name of the designated registrant (Architect or Engineer) responsible for specifying the required special inspection(s).
  - a. Circle or underline registration type: [Architect] or [Engineer]
2. Original signature of the project owner (or owner's legal agent) required. Persons signing as the owner's agent shall *not* be the same registrant specifying the special inspection(s).

### **C. SPECIAL INSPECTION RESPONSIBILITY CERTIFICATE**

The designated registrant (see Part 'B' above) shall:

1. Check off the special inspection(s) required by the Uniform Building Code, approved plans and Tempe Building Code Directive #19. (reference UBC Section 1701.5)
  - a. Special inspections not listed; such as, epoxy anchors or other inspections deemed necessary by the building official, shall be indicated under inspection #15 and noted after "Special Cases."
2. Under "Persons to Perform Inspection" legibly print the name of the individual or inspection organization to perform each required inspection.
3. Sign and date (original signature required) or seal with signature and date.
4. Print Arizona Registration number.

### **D. CERTIFICATE OF COMPLIANCE**

DO NOT COMPLETE THIS SECTION. This portion to be completed *after* the required special inspection(s) have been performed.

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Development Services Department  
Building Safety Division

## **BUILDING CODE DIRECTIVE #19**

### **SUBJECT: SPECIAL INSPECTIONS**

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"Special Inspection" when required, is provided in addition to the inspections conducted by this Division, and shall not be construed to relieve the owner or his authorized agent from requesting the periodic and called inspections required by Section 108.5.1 through 108.7 of the Uniform Building Code as adopted.

A. **When Required.** "Special Inspection" is required on the types of construction specified in Section 1701.5 Uniform Building Code, as adopted and subject to the following conditions:

1. **Concrete.** During the taking of test specimens and placing of all reinforced concrete. See Item 12 for shotcrete.

**EXCEPTIONS:** 1. Concrete for foundations conforming to minimum requirements of Table No. 18-I-D or for Group R, Division 3 or Group U, Division 1 Occupancies, provided the building official finds that a special hazard does not exist.

2. For foundation concrete, other than cast-in-place drilled piles or caissons, where the structural design is based on an  $f'_c$  no greater than 2,500 pounds per square inch (psi) (17.2 MPa).

3. Non-structural slabs on grade, including prestressed slabs on grade when effective prestress in concrete is less than 150 psi. (1.03 MPa).

4. Site work concrete fully supported on earth and concrete where no special hazard exists.

2. **Bolts installed in concrete.** Prior to and during the placement of concrete around bolts when stress increases permitted by Footnote 5 of Table 19-E or Section 1925 are utilized.
3. **Special moment-resisting concrete frame.** As required by Section 1921.9 of this code.
4. **Reinforcing steel and prestressing steel tendons:**

4.1 During all stressing and grouting of tendons in prestressed concrete.

4.2 During placing of reinforcing steel and prestressing tendons for all concrete required to have special inspection by Item 1.

**EXCEPTION:** The special inspector need not be present continuously during placing of reinforcing steel and prestressing tendons, provided the special inspector has inspected for conformance with the approved plans prior to the closing of forms or the delivery of concrete to the jobsite.

**5. Structural Welding.**

5.1 **General.** During the welding of any member or connection which is designed to resist loads and forces required by this code.

**EXCEPTIONS:** 1. Welding done in an approved fabricator's shop in accordance with Section 1701.7.

2. The special inspector need not be continuously present during welding of the following items, provided the materials, qualifications of welding procedures and welders are verified prior to the start of work; periodic inspections are made of work in progress; and a visual inspection of all welds is made prior to completion or prior to shipment of shop welding:

2.1 Single-pass fillet welds not exceeding 5/16 inch (7.9mm) in size.

2.2 Floor and roof deck welding.

2.3 Welded studs when used for structural diaphragm or composite systems.

2.4 Welded sheet steel for cold-formed steel framing members such as studs and joists.

2.5 Welding of stairs and railing systems.

3. Non-structural welding and structural welding when the design stress is 50% or less of the allowable stress.

5.2 **Special moment-resisting steel frames.** During the welding of special moment-resisting steel frames. In addition to Item 5.1 requirements above, nondestructive testing as required by Section 1703 of this code.

5.3 **Welding of reinforcing steel.** During the welding of reinforcing steel.

**EXCEPTIONS:** 1. The special inspector need not be continuously present during the welding of ASTM A 706 reinforcing steel not larger than No. 5 bars used for embedments, provided the materials, qualifications of welding procedures and welders are verified prior to the start of work; periodic inspections are made of work in progress; and a visual inspection of all welds is made prior to completion or prior to shipment of shop welding.

2. Non-structural welding and structural welding when the design stress is 50% or less of the allowable stress.

6. **High-strength bolting.** As required by Chapter 22, Division IV. Such inspections may be performed on a periodic basis in accordance with the requirements of Section 1701.6.

**7. Structural masonry.**

7.1 For masonry, other than fully grouted open-end hollow-unit masonry, during preparation and taking of any required prisms or test specimens, placing of all masonry units, placement of reinforcement, inspection of grout space, immediately prior to closing of cleanouts and during all grouting operations.

**EXCEPTION:** For hollow-unit masonry where the  $f'_m$  is no more than 1,500 psi (10.34 MPa) for concrete units or 2,600 psi (17.93 MPa) for clay units, special inspection may be performed as required for fully grouted open-end hollow-unit masonry specified in Item 7.2 below.

- 7.2 For fully grouted open-end hollow-unit masonry during preparation and taking of any required prisms or test specimens, at the start of laying units, after the placement of reinforcing steel, grout space prior to each grouting operation, and during all grouting operations.

**EXCEPTION:** Special inspection as required in Items 7.1 and 7.2 above need not be provided when design stresses have been adjusted as specified in Chapter 21 to permit noncontinuous inspection.

8. **Reinforced gypsum concrete.** When cast-in-place class "B" gypsum concrete is being mixed and placed.
9. **Insulating concrete fill.** During the application of insulating concrete fill when used as part of the structural system.

**EXCEPTION:** The special inspection may be limited to an initial inspection to check the deck surface and placement of reinforcement. The special inspector shall supervise the preparation of compression tests specimens during the initial inspection.

10. **Sprayed-applied fireproofing.** As required by U.B.C. Standard 7-6.
11. **Piling, drilled piers and caissons.** During driving and testing of piles and construction of cast-in placed drilled piles or caissons. See items 1 and 4 for concrete and reinforcing steel inspections.
12. **Shotcrete.** During the taking of test specimens and placing of shotcrete as required by Section 1922.10 and 1922.11.

**EXCEPTION:** Shotcrete work fully supported on earth, minor repairs and when, in the opinion of the building official, no special hazard exists. (This includes swimming pools, when the structural design is based on an  $f'_c$  no greater than 2500 p.s.i. (17.2 MPa))

13. **Special grading, excavation and filling.** During earth-work excavations, grading and filling operations inspection to satisfy requirements of Chapter 18 and Appendix Chapter 33 of this code.
14. **Smoke-control system.**
- 14.1 During erection of ductwork and prior to concealment for the purposes of leakage testing and recording of device location.
- 14.2 Prior to occupancy and after sufficient completion for the purposes of pressure difference testing, flow measurements, and detection and control verification.
15. **Special Cases.** Work which, in the opinion of the building official, involves special hazards or conditions, *or where the inspection is required by a products approval listing (i.e., adhesive anchor systems).*

- B. **Special Inspector.** In accordance with Sections 1701.1 and 106.3.5 "Special Inspector(s)" shall be provided by, or under the supervision of an Architect or Engineer in responsible charge of the structural inspection for which "Special Inspection" is required, subject to the following conditions:

**BUILDING CODE DIRECTIVE #19**  
**SUBJECT: SPECIAL INSPECTIONS**

**Page 4**

1. Notification: (Prior to the Building Permit) The owner or his authorized agent shall notify the Development Services Department/Building Safety Division in writing on the form provided, the name of the Architect or Engineer who will carry out the required inspection. The responsible Architect or Engineer shall notify the Department of any changes of "Special Inspection(s)" prior to conducting the inspections.
2. Certificate of Responsibility: The Architect or Engineer in responsible charge of the "Special Inspection(s)" shall so certify to the Division in writing on the form provided prior to the issuance of the Building Permit, and shall notify the Division immediately if terminated prior to completion of the work, for which "Special Inspection(s)" is required.
3. Qualification: No person(s) shall be assigned to carry out the duties of the "Special Inspector(s)" unless thoroughly qualified by knowledge and experience to render full, complete and competent inspection. It shall be the responsibility of the Architect or Engineer in responsible charge of the special inspection to satisfy the duties and responsibilities as stated in Sections 1701.3 and 106.3.5 of the Uniform Building Code.
4. Inspection and Reports: The Architect or Engineer in responsible charge of the "Special Inspection(s)" or the designated "Special Inspector(s)" shall provide continuous, competent and complete inspection on the work for which "Special Inspection(s)" is required in accordance with Sections 1701.3 and 106.3.5 and shall submit reports to the Division's Inspection Section stating his approval of the work as it progresses, but not less than monthly.

The "Special Inspector(s)" shall notify the Division immediately upon detection of all discrepancies involved in the "Special Inspections" that have not been corrected in accordance with the approved plans and specifications prior to proceeding with the work.

When it is determined that construction is not in conformance with the approved plan, such construction shall be brought into conformance, and where required, a revision shall be submitted to the Division's Plan Check Section for approval prior to proceeding with the work.

*Inspection reports for items, such as adhesive anchoring systems for bolts and reinforcement bars, designated by an evaluation service as requiring "Special Inspection" shall list and record all the information as outlined in the evaluation service report during installation of the product. Typical requirements include temperature at installation, size of drill bit, depth and cleanliness of hole, edge distance, proper mixing, adhesive product description, including name and expiration date. Check each products-specific report for the required information to be recorded.*

5. Certificate of Compliance: Upon completion of the work for which "Special Inspection(s)" is required the Architect or Engineer in responsible charge of the "Special Inspection(s)" shall certify to the Division on the form provided, that the work for which "Special Inspection(s)" is required has been completed in accordance with the requirements of the building code and the approved final plans.

*Note:*

*A City of Tempe Building Safety inspection is not required for adhesive anchoring systems installed with "Special Inspections" that conform to all requirements of their specific evaluation report as designated in items 1-5 listed above.*

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**SPECIAL INSPECTION CERTIFICATE**

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**A. Project Identification**

Project: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Tracking No: \_\_\_\_\_

Permit No: \_\_\_\_\_

**B. Notification of Special Inspection by Owner**

In compliance with Sections 1701.1 and 106.3.5 of the Uniform Building Code as adopted, which requires the owner or agent to employ a Special Inspector to be present at all times during the construction of work, I do hereby designate the following [Architect] or [Engineer] to be in responsible charge of the Special Inspection on the above project.

\_\_\_\_\_  
Designated (*specify type*) [Architect] or [Engineer]\_\_\_\_\_  
Original Signature of Owner or Legal Agent**C. Special Inspection Responsibility Certificate**

I certify that I am familiar with the above-named project. I have assigned the following person(s) to inspect the designated work, and in accordance with Sections 1701.1 and 106.3.5 of the Uniform Building Code as adopted, hereby assume full responsibility for the Special Inspection of the following type(s) of construction utilizing higher stress in the design.

WORK WHICH REQUIRES SPECIAL INSPECTION	PERSONS TO PERFORM SPECIAL INSPECTION
1. <input type="checkbox"/> Concrete	
2. <input type="checkbox"/> Bolts Installed in Concrete	
3. <input type="checkbox"/> Ductile Moment-Resisting	
4. <input type="checkbox"/> Reinforcing and Prestressing Steel	
5. <input type="checkbox"/> Welding	
6. <input type="checkbox"/> High Strength Bolting	
7. <input type="checkbox"/> Structural Masonry	
8. <input type="checkbox"/> Reinforced Gypsum Concrete	
9. <input type="checkbox"/> Insulating Concrete Fill	
10. <input type="checkbox"/> Spray-Applied Fireproofing	
11. <input type="checkbox"/> Piling, Drilled Piers and Caissons	
12. <input type="checkbox"/> Shotcrete	
13. <input type="checkbox"/> Special Grading, Excavation and Filling	
14. <input type="checkbox"/> Smoke Control Systems	
15. <input type="checkbox"/> Special Cases:	

\_\_\_\_\_  
Original Signature (Architect) (Engineer)\_\_\_\_\_  
Arizona Reg. No.\_\_\_\_\_  
Date

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**D. Certificate of Compliance**

I certify that, to the best of my knowledge, the structural requirements of the Tempe City Code and the approved plans and specifications have been complied with insofar as the portion of the work requiring Special Inspection is concerned, except for those deviations that have been previously reported. A guarantee that the building has been constructed in full accord with the plans and specifications is neither intended nor implied.

\_\_\_\_\_  
Original Signature (Architect) (Engineer)\_\_\_\_\_  
Date